CLAIMS

1- A method for controlling and protecting electric motors (10) provided with a rotor, specially permanent magnet motors electronically actuated by a control system (2) comprising a three-phase inverting bridge (5), characterized by comprising a step of counting a first period of time, during which said rotor should be between an original position and the next position and a step of counting a second period of time that follows said first period of time, during which said rotor should pass through said next position.

2- The method in accordance with claim 1, characterized by comprising an additional step of issuing an error signal if said rotor passes through said next position before or after said second period of time, or an output updating signal to restart a counter in the event the rotor passes through said next position during said second period of time.

3- The method in accordance with claim 2, characterized by comprising an additional step of issuing an error signal if said rotor passes, during said second period of time, through a position other than the one that follows said original position.

4- The method in accordance with claim 2 or 3 characterized in that the control system 2 may be turned off through said error signal.

5- A control system (2) for an electric motor (10) provided with a rotor, specially a permanent magnet motor, comprising a three-phase inverting bridge (5) and characterized by being additionally comprised of a microcontroller capable of analyzing the positions of the rotor as a function of the time, associated with a counter capable of carrying out the step of counting a first period of time, during which said rotor should be between an original position and the next position, and the step of counting a second period of time that follows said first period of time, during which said rotor should pass through said next position.

6- An electric motor system 1 comprising a control system (2), an electric motor (10) electronically actuated by the control system 2, and characterized by being additionally comprised of a microcontroller, capable of analyzing the positions of the rotor as a function of the time, associated with a counter capable of carrying out the step of counting a first period of time, during which said rotor should be between an original position and the next position, and the step of counting a second

period of time that follows said first period of time, during which said rotor should pass through said next position.